

LITHOLOGY OF CORE SAMPLES SUBMITTED FOR ASSAY ¹¹

Carbon corehole 1, Wasatch Development Company, at a point whence the N. 1/4 corner of sec. 33, T. 4 S., R. 97 W., bears N. 68° W. 122.5 feet, Garfield County, Colo.

Surface Elevation 7,624 feet Total Depth 600.5 feet Mahogany Marker 435.0 feet

From	To	Description
10	77	Lt gr, dirty wh, and bf silty tuff, marlstone and tuffaceous marlstone.
77	89.5	Marlstone, lt tan, hard. Poor recovery, short footage.
89.5	94.7	Marlstone, bf and lt tan.
94.7	102.0	Marlstone, irregular banded blk and lt gr. Poor recovery.
102	103.5	Silty marlstone, lt gr, massive with vertical fracture. (Barren.)
103.5	109	Marlstone, bf to lt tan. Poor recovery.
109	112	Marlstone, blk, well-bedded and massive.
112	125	Marlstone, gr and lt br, massive, some distorted areas. Salt, calcite, and pyrobitumen crystals. 50% recovery.
125	129.6	Marlstone, bf, lt tan.
129.6	133.5	Marlstone, lt br and br, massive and well-bedded. Abundant flattened calcite crystals from 130-131.4.
133.5	140.5	Marlstone, br, massive.
140.5	150.3	Marlstone, bf, lt tan, and br. Vertical fracture from 140.5-141.5 and 147.5-148.5. Crystal cavities 145.4-145.8.
150.3	153.5	Marlstone, br, massive.
153.5	155.5	Marlstone, banded tan and lt br.
155.5	158	Marlstone, dk br, massive and well-bedded. 1" band of analcite tuff and bitumen at 156.8.
158	159	Tuff, dirty-wh, with vertical fracture.
159	161.2	Marlstone, tan and lt br. 1" band lt tan tuff at 159.4. 2" band dirty-wh tuff at 159.8-160'.
161.2	164	Marlstone, dk gr and blk, some vertical fracture. Fracture faces coated with small pyrite and quartz crystals. Evidence of vug at 164 filled with calcite rhombs and quartz crystals.
164	168.7	Marlstone, lt br and br, well-bedded, vertical fracture in most of section, fracture faces coated with blu kaolin.
168.7	177.3	Marlstone, dk gr, dk br, and blk, generally massive. Some vertical fracture.
177.3	184.5	Marlstone, dk gr, dk br, and blk. 3" band lt tan tuff and marlstone approximately 181. (Long section.)
184.5	192.2	Marlstone, dk gr, dk br, and blk. (6' recovery.)
192.2	195	Marlstone, dk gr and blk. Vertical fracture 194.5-195.
195	198	Marlstone, dk gr and blk.
198	206	Marlstone, dk gr and blk. 1/2" band coarse grained quartz ss. at 201.4, 1/2" band wh tuff at 202.6, 1/4" band coarse-grained, grish-br tuff at 204.3.

By H. N. Smith

Illustration No. SBR-2281P

Petroleum and Oil-Shale Experiment Station, Laramie, Wyoming February 28, 1958

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206	209.5	Marlstone, dk gr and blk.
209.5	211.3	Marlstone, lt br and br.
211.3	218	Marlstone, dk br and blk.
218	221	Marlstone, lt tan, distorted, crystal cavities.
221	225	Marlstone, lt tan and br.
225	228	Marlstone, dk gr to blk.
228	238.8	Marlstone, lt br, br, and dk gr, some vertical fracture.
238.8	244.1	Marlstone, lt br and br, well-bedded. Vertical fracture 239.6-240.2 with fracture faces coated with wh clay, probably kaolin.
244.1	246.1	Marlstone, blk, predominately massive.
246.1	252	Marlstone, br, well-bedded, some small lenses of analcite.
252	255.3	Marlstone, blk and dk br, predominately massive.
255.3	258.7	Marlstone, lt br and br, some banded and well-bedded, some massive.
258.7	262.5	Marlstone, blk and dk br, massive and well-bedded.
262.5	268.3	Marlstone, lt br, br, and blk, well-bedded.
268.3	275.5	Marlstone, lt br and br, predominately massive, some vertical fracture with fracture faces coated with blu kaolin.
275.5	280.5	Marlstone, dk br. 2" br analcite tuff with bitumen at 278.6'. 1/2" bands of br analcite tuff at 279' and 279.5'. 2" band of br analcite tuff at 280 and 4" band of same at 280.4'.
280.5	287.5	Marlstone, dk br and blk.
287.5	289.2	Marlstone, lt br and tan.
289.2	297.5	Marlstone, dk br, dk gr, and blk. Several 1/2"-1" bands br analcite tuff from 294.2-295.6'.
297.5	301	Marlstone, lt tan lt br. Vertical fracture at 300-301'.
301	326.8	Marlstone, dk gr, dk br, and blk. 2" band br analcite tuff at 314.4' and 321.3'.
326.8	332	Marlstone, lt br and br.
332	341.2	Marlstone, dk gr and dk br, small analcite lenses. 1/2" band buff analcite tuff at 340.3'.
341.2	342.3	Analcite tuff, grish-wh and buff. Contains bitumen and stringers of marlstone. Shows some vertical fracture similar to marker.
342.3	344.3	Marlstone, gr and lt br. Badly broken fragments. Evidence of crystal cavities. (About .8' recovery.)
344.3	354	Marlstone, dk br, predominately massive, some vertical fracture. (About 50% recovery.)
354	360	Marlstone, dk gr and dk br, broken fragments, predominately massive. (Poor recovery.)

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From	To	Description
360	369.3	Marlstone, lt br and br, massive and well-bedded. Vug filled with bluish material at 368.4.
369.3	401	Marlstone, dk gr, dk br, and blk, hard, compact, some blk pyrobitumen. Good recovery of a good shale span.
401	410.5	Marlstone, banded buff and tan. Noticeable parting at 405.2'. Parting parallel to bedding laminae and filled with bluish-wh kaolin. 401 probable top of A-groove, 410.5 probable bottom A-groove.
410.5	411.7	Marlstone, lt br, well-bedded.
411.7	416.5	Marlstone, br, dk br, and blk.
416.5	419	Marlstone, banded tan, br, and dk br, numerous thin bands of br analcite tuff. 2" band of br analcite tuff at 418.7'.
419	426	Marlstone, dk br and blk. Considerable analcite (dk br) banding from 419.7 to 420.5'.
426	427	Marlstone, lt tan, badly fragmented. Fragmented tan tuff at 426.8'.
427	434	Marlstone, br, compact, quite uniform.
434	434.6	Marlstone, banded br and dk br.
434.6	435	Analcite tuff, gr, medium-grained. (Mahogany marker.)
435	438.7	Marlstone, banded tan, lt br, and dk br.
438.7	456	Marlstone, dk br and blk, compact, uniform.
456	467	Marlstone, dk br and blk, compact, uniform. 1/2" band wh tuff at 465'.
467	472	Marlstone, dk br and blk.
472	475	Marlstone, lt br and br. Evidence of vertical fracture and vugs.
475	481.9	Marlstone, lt br and br.
481.9	483	Marlstone, br and lt br, distorted bedding with some mudstone.
483	486.8	Marlstone, br and dk br.
486.8	488.2	Marlstone, tan and lt br. Distorted bedding with vertical fracture. Fracture faces coated with kaolin.
488.2	492.2	Marlstone, banded br and dk br, some vertical fracture.
492.2	497	Marlstone, br and dk gr. Sample badly fragmented. Few pieces of gr mudstone.
497	503	Marlstone, lt gr, tan, and lt br, some distorted bedding, some vertical fracture. 6" band grish-br analcite tuff at approximately 501'. Sample badly fragmented.
503	504.5	Marlstone, dk br.
504.5	506.5	Marlstone, banded, lt br and br.
506.5	510	Marlstone, dk br and dk gr.
510	512.5	Marlstone and silty marlstone, lt tan, buff, and dirty-wh. Sample badly fragmented.
512.5	514	Marlstone, dk br and blk.
514	516	Silty marlstone, dirty-wh, contorted bedding.
516	523	Marlstone, dk br and dk gr. Some local distortion.

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523	529	Marlstone, lt br and gr. Section badly fragmented.
529	545	Siltstone and silty marlstone, lt gr and dirty-wh, distorted bedding. Sample fragmented. 529' probable top B-groove. 545' probable bottom B-groove.
545	552	Marlstone, dk gr, gr, and br. (Approximately 60% recovery.)
552	562	Marlstone, banded lt br, dk br, and tan, well-bedded. (50% recovery.)
562	570.3	Marlstone, banded br and dk br.
570.3	586	Marlstone, predominately banded br, dk br, and blk, well-bedded.
586	589	Silty marlstone, buff, and lt tan.
589	600.5	Marlstone, blk, dk gr, and br.
600.5		Bottom of section. Hole bottomed in blk marlstone.

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